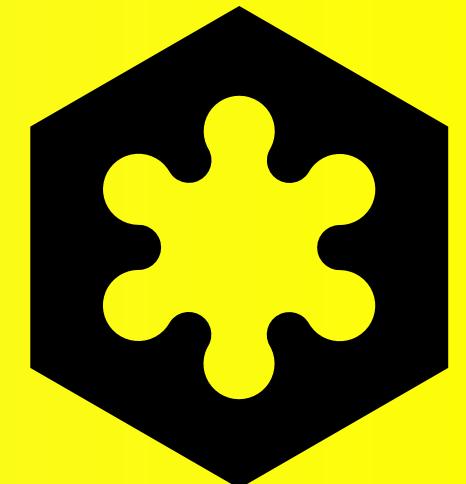


AIRSHADE

TECHNOLOGIES



*Smart shading – without electricity.
No motors, sensors, or wiring.*

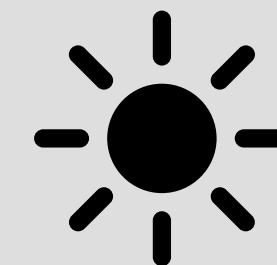
FOUNDED
2022 | AMSTERDAM, NL

2 PATENTS
1 GRANTED, 1 CO-OWNED WITH METADECOR

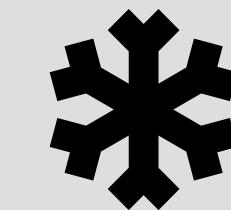
TESTED WITH
ARUP metadecor
MVRDV MASDAR
CITY

THE PROBLEM:

SMART SHADING IS COMPLEX → BUILDINGS OVERHEAT



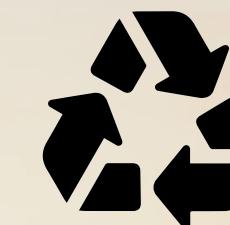
100M Europeans **cannot** keep homes **cool** in summer¹



Cooling demand will triple by 2050²
→ **carbon exposure = regulatory risk**



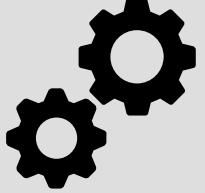
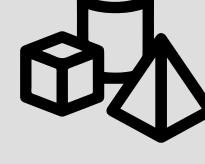
Motorized shading is most effective
→ **but costly and maintenance-heavy**

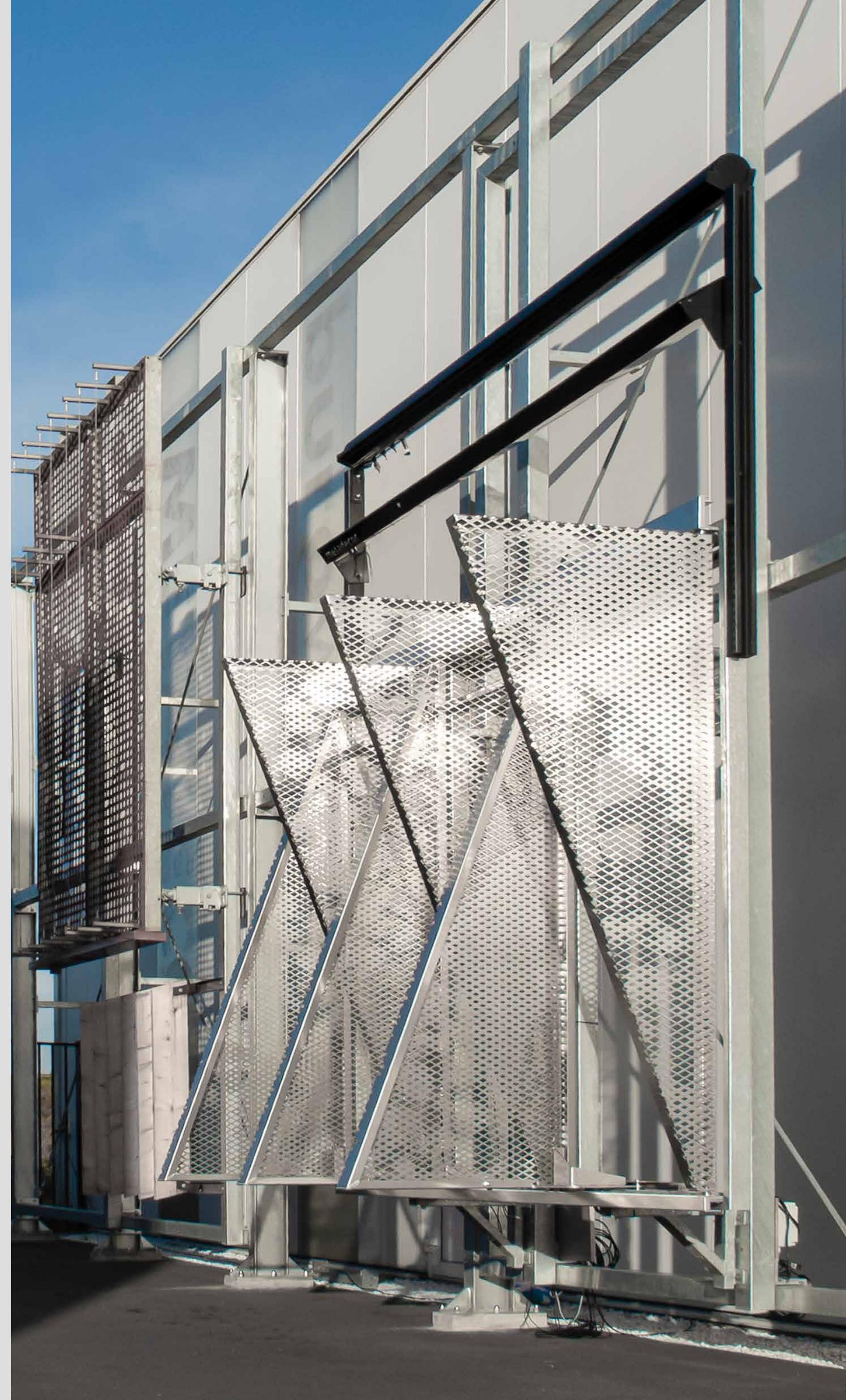


Smart systems **age poorly**
→ electronics do **not match** façade lifecycles

THE SOLUTION:

SMART SHADING WITHOUT ELECTRICITY

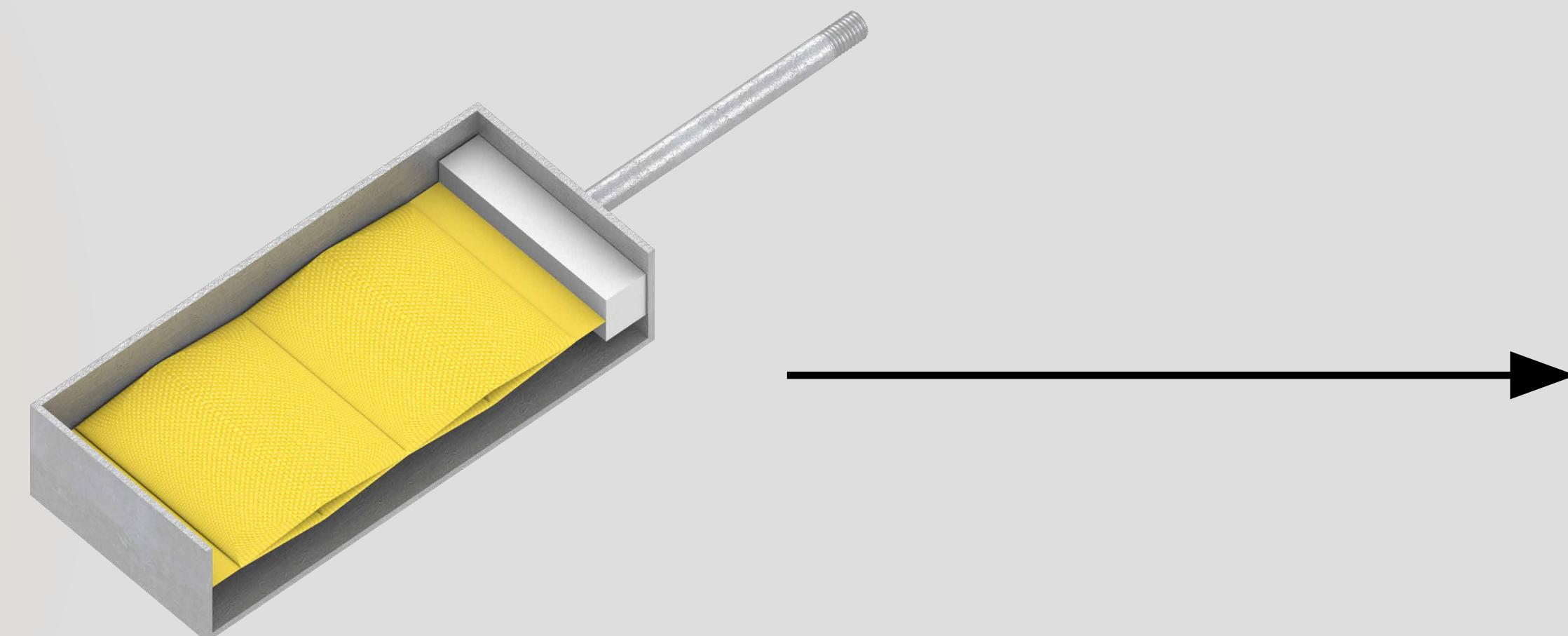
-  **Self-adjusting sun-powered shading**
-  **Up to 40% lower cooling = smaller HVAC**
-  **No cables, sensor or motors = low costs (CapEx & OpEx)**
-  **Silent, low-maintenance, zero-carbon**
-  **Retrofit-ready for new and existing buildings**



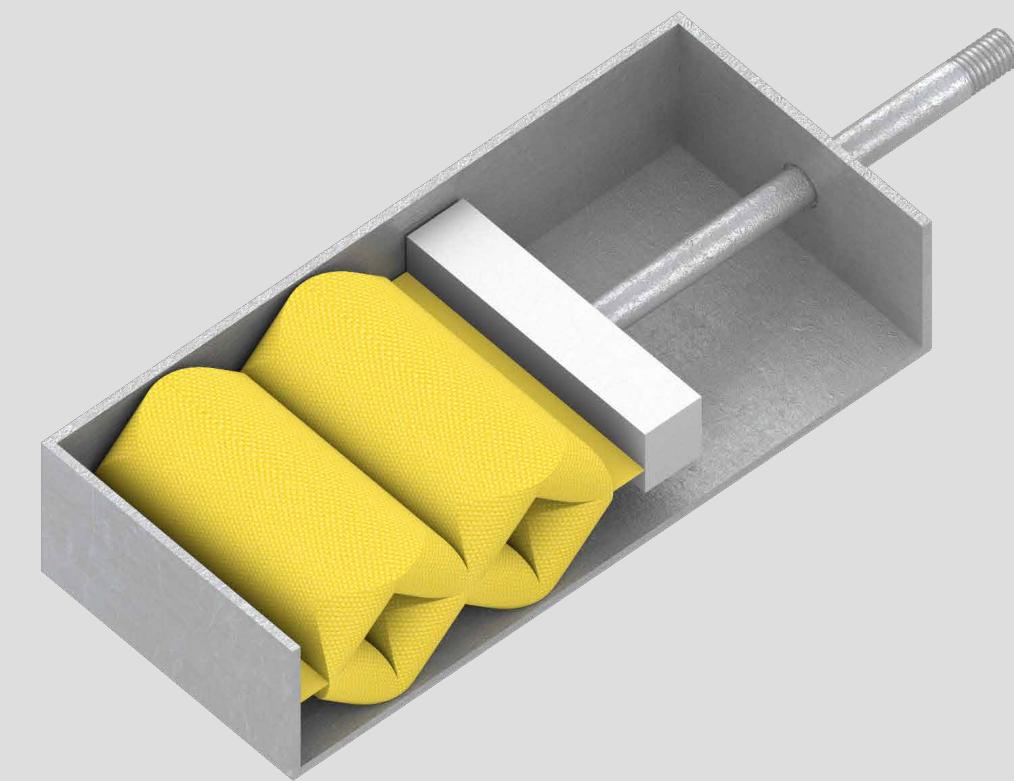
AIRSHADE PASSIVE ACTUATOR TECHNOLOGY:

NATURAL INTELLIGENCE → PHYSICAL RESPONSE

No sensor. No motor. No power.

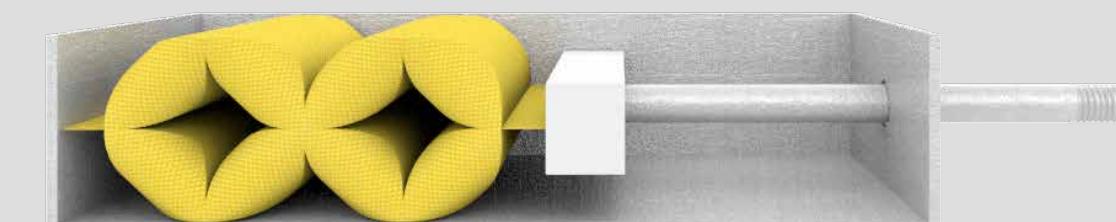
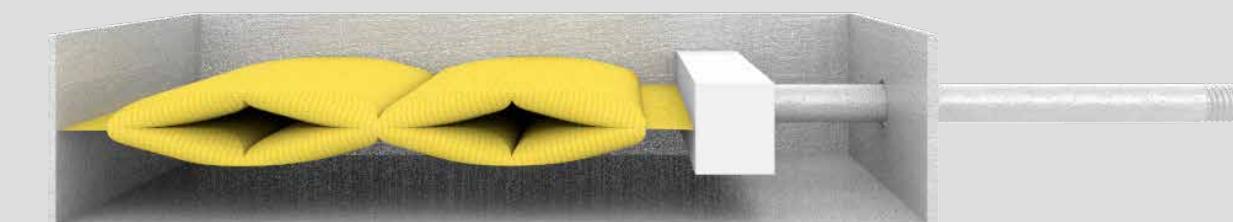


1 Air expands
with heat



2 Air pressure
rises

3 Shading units move
with air expansion



COMPETITION:

WHY AIRSHADE WINS AT BUILDING LEVEL?



Low Total Cost of Ownership	✓	✗
Zero-carbon tech	✓	✗
No power / cables	✓	✗
Extended warranty	✓	✗
EPBD-aligned by design	✓	!

MARKET OPPORTUNITY:

PASSIVE AUTOMATED SHADING

Building Envelope Shading & Automation

Fixed + automated in building envelopes

TAM

€25-30B

SAM

€3–6B

SOM

€300M–1,3B

Europe + Middle East (Focus Markets)

Regulation- and climate-driven markets

Passive Automated Shading

Via OEM licensing and integration

Automated shading remains limited today; passive automation enables scale

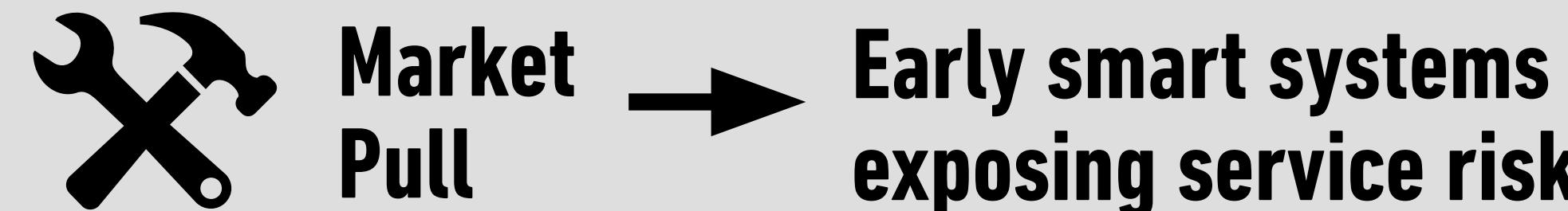
IP expansion:
ventilation, skylights,
adaptive envelopes

WHY NOW?

REGULATION & OVERHEATING PUSH PASSIVE AUTOMATION



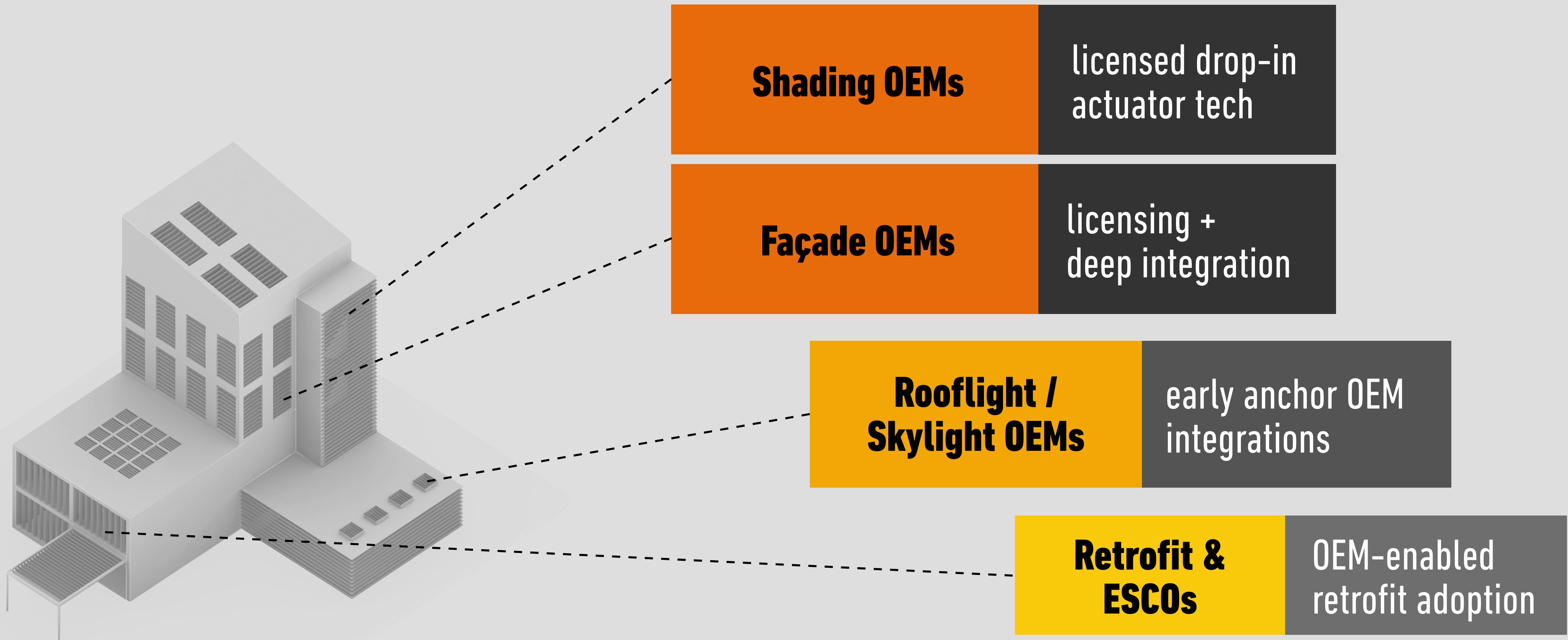
- Overheating is now a **regulatory and asset-value** issue
- EPBD shifts focus to **operational energy and lifecycle performance**



- Passive technology **avoids** software and electronic **obsolescence**
- Retrofit now **dominates** Europe's building stock driven by **zero-carbon targets**

AIRSHADE BUSINESS MODEL:

IP-LED HARDWARE LICENSING COMPANY – NOT A CONTRACTOR



TRACTION: PILOTS WITH TIER-1 ENGINEERING & FAÇADE PARTNERS

Validated in retrofit and extreme climates – no power, wiring, or controls



RETROFIT PILOT (EU)
Hoogeschool Utrecht, NL
2020 - 2021

HOGESCHOOL
UTRECHT
schellekens
PROFESSIONALS IN ZONWERING

EXTREME-CLIMATE PILOT
Masdar City, UAE
2023 - ongoing



MASDAR
CITY
مدينه
مطرد
ARUP **metadecor**

TRACTION: FROM PILOTS TO DEPLOYMENT



SOMBRA Pavilion – High-visibility installation

Multi-partner façade system
2025, Venice, IT

ARUP MVRDV Alumet®
AMOLF KERSTEN VAN ROSSUM metadecor
The future is curved



MARKUS WINES WINERY

~100 shading units integrated via façade OEM
First non-pilot building deployment under construction, 2025, Split, HR

metadecor

INVESTMENT: SEEKING SEED ROUND OF €1.5M TO CONVERT PILOTS INTO OEM LICENSING REVENUE WITHIN 18–24 MONTHS



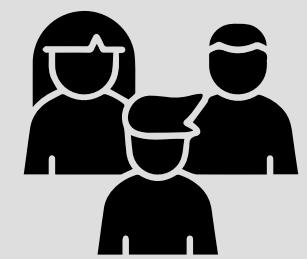
OEM integration & licensing execution

Technical integration,
joint OEM validation



OEM productisation & certification

Standardised, OEM-ready
modules & compliance testing



Core team expansion

Engineering +
OEM business development

2-3 OEM commercial
agreements signed

Transition from pilots to
repeatable deployments

First recurring OEM
licensing revenue

TEAM & PARTNERS:

CORE TEAM TODAY



Nikola Znaor
Founder | CEO

Licensed architect with 10+ years in climate-adaptive façade systems



Joe Platt
Lead Engineer (contract)
ex-Head of Hardware at Aectual
ex-Lead Engineer at Royal3D

PLANNED KEY HIRES



Wilco Pelgrom
Commercial Scale-up
ex-CEO, Metadecor
Facade sector scale-up expert



Dr. Rafaela Louis
Mechanical Engineer
Passive facade actuators
ETH Zürich, joining post-PhD

STRATEGIC / R&D PARTNERS

ARUP

Tier-1 engineering partner on flagship projects.
Strategic LoI with commercial pathway.

metadecor

Engineering & manufacturing partner.
Standardized shading unit co-development.

AMOLF TU/e

EINDHOVEN
UNIVERSITY OF
TECHNOLOGY

Partnership with Soft Robotic Matter Group on application of soft robotics.

ETH zürich

Planned industry validation at ETH Zurich
Zero Carbon Building Systems Lab.

SCIENTIFIC ADVISORS



Prof. Dr. Bas Overvelde
AMOLF / TU Eindhoven
Harvard PhD Soft Robotics



Dr. Sergio Picella
EPFL post-doc
Soft Robotics Expert

Airshade Technologies B.V.

Nikola Znaor | Founder
nikola.znaor@airshade.eu
www.airshade.eu

**Designed by Us,
Powered by Nature.**



 **Holcim awards**
LafargeHolcimFoundation
for Sustainable Construction

Next Generation Winner 2014

ARUP

Runner-up & Jury's Special Mention
Future of Facades 2023

JAMES DYSON AWARD
2016

Winner
Austria 2016



EU SME Instrument Phase 1 2018

archello awards25

2025 Pavilion of the Year
with ARUP, MVRDV, metadecor



Rijksdienst voor Ondernemend
Nederland

Dutch Business Agency MIT R&D Grants



ECC Shortlist
2025



2024 Innovation of The Year
with ARUP

 **ZAK WORLD OF FAÇADES**

Shortlist Dubai 2024
with ARUP

 **Netherlands
Business Council UAE
The Awards**

LeasePlan Emirates Energy
Award 2020- nominee



Selection Competition

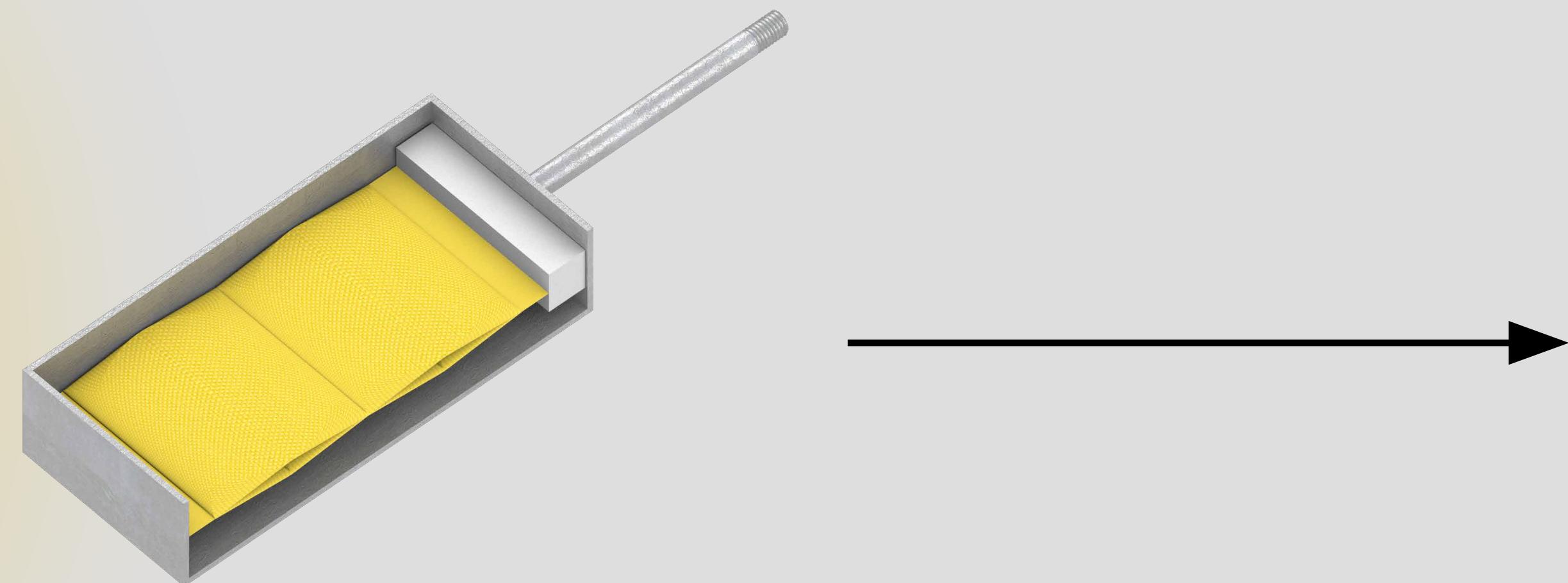
adream²⁰¹²

Architektur und Design
mit nachwachsenden und ökologischen Materialien
Winner Architecture & Design

AIRSHADE PASSIVE ACTUATOR TECHNOLOGY:

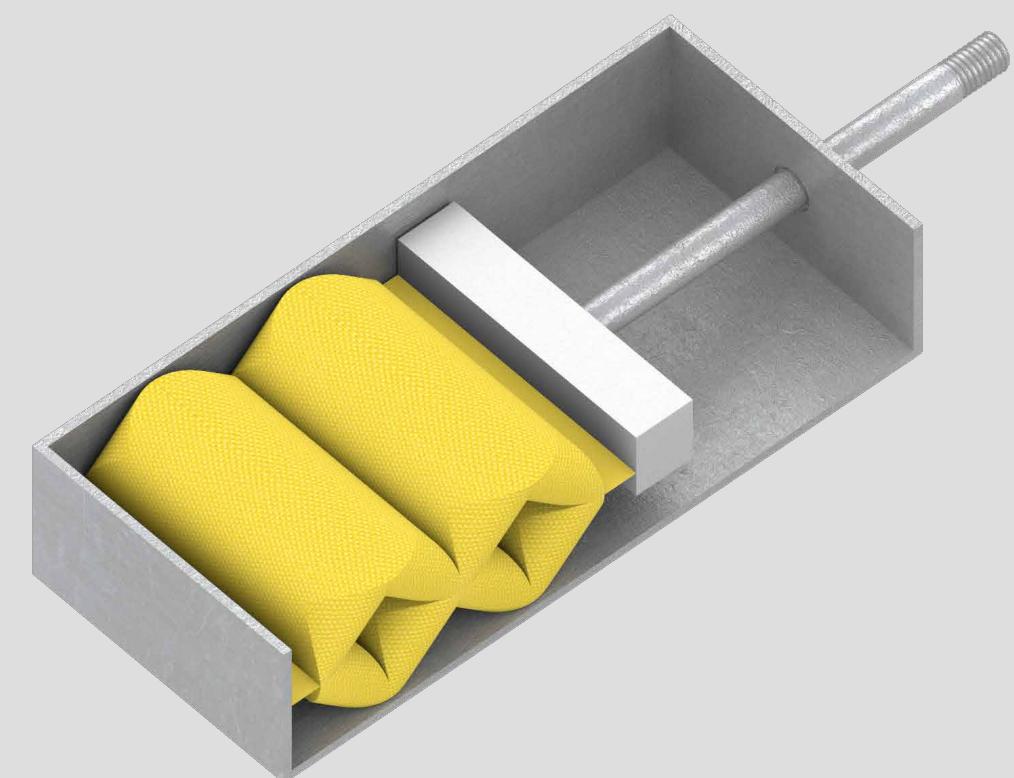
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